Object Marking in the Tigrinya Ditransitive Construction(s)

Abstract: Observing obligatory object marking in transitive constructions in Tigrinya (Ethiosemitic; Eritrea and Northern Ethiopia), unexpected optionality of object marking in ditransitive constructions presents a puzzle. This paper argues that, despite initial appearances, Tigrinya actually employs two distinct ditransitive frames. Object marking in Tigrinya is in fact obligatory and the apparent optionality is the result of argument structure alternations that are masked by a surface ambiguity of the differential object marker and a preposition. Goals may be either indirect or direct arguments, which in turn affects the observed object marking pattern. Newly collected data reveals that this analysis correctly predicts additional empirical effects on interpretation and binding relations that correlate directly with the observed object marking pattern.

Keywords: Tigrinya; object marking; ditransitives; double object constructions; symmetric object language; asymmetric object language

Contents

1 Introduction

1.1 An Optionality Puzzle

Transitive constructions in Tigrinya show an obligatory co-occurrence between an object marker on the verb and the differential object marker (glossed 'N') on the cross-referenced [+specific] argument (1)–(2). The contrast in (1) shows that an *N*-marked Theme must be cross-referenced by object marking and the contrast in (2) shows that a non-*N*-marked Theme cannot be cross-referenced by object marking.[1]

(1) a. ʔɨti   sǝbaj **n**=ǝta dǝbdabe tsɨħif-u-**wa**
         that-ms man **N**=that-fs letter   write=GER-S3ms-**O3fs**
         "The man wrote the letter."

     b. * ʔɨti   sǝbaj **n**=ǝta dǝbdabe tsɨħif-u
         that-ms man **N**=that-fs letter   write=GER-S3ms
         "The man wrote the letter."

(2) a. ʔɨti   sǝbaj dǝbdabe tsɨħif-u
         that-ms man letter   write=GER-S3ms
         "The man wrote a letter."

     b. * ʔɨti   sǝbaj dǝbdabe tsɨħif-u-**wa**
         that-ms man letter   write=GER-S3ms-**O3fs**
         "The man wrote a letter."

Given the pattern above, which is well established in the previous literature on case and agreement in Tigrinya (Kievit and Kievit 2009; Nazareth 2007, 2011; Leslau 1941; Weldeyesus 2004), ditransitive constructions present something of a puzzle. In (3), a Goal argument that is *N*-marked need not necessarily be cross-referenced by object marking.[2] When both the Goal and Theme ar-

[1]Gloss abbreviations: 3 = third person, A = applied argument marker, f = feminine, GER = gerundive, m = masculine, N = N-marker, N_K = differential object marker, N_P = prepositional dative marker, O = direct argument marker, p = plural, PRF = perfect, S = subject marker, s = singular.

[2]The morphological alternation in the object marker (i.e., *wa* vs. *ta*) is a simple assimilation process of the consonant to the shape of the subject marker which varies across aspects.

guments are *N*-marked as in (4), one of the arguments must be cross-referenced by object marking, but it is possible to cross-reference either the Goal (4a) or the Theme (4b).

(3) a. ʔɨta gʷal $\boxed{\textbf{n}}$=əti wədi dəbdabe hib-a-$\boxed{\textbf{to}}$
         that-fs girl-s **N**=that-ms boy-s letter give=GER-S3fs-**O3ms**
         "The girl gave the boy a letter."

    b. ʔɨta gʷal $\boxed{\textbf{n}}$=əti wədi dəbdabe hib-a
         that-fs girl-s **N**=that-ms boy-s letter give=GER-S3fs
         "The girl gave a letter to the boy."

(4) a. ʔɨti gʷal **n**=əta dəbdabe $\boxed{\textbf{n}}$=əti wədi hib-a-$\boxed{\textbf{to}}$
         that-fs girl **N**=that-fs letter **N**=that-ms boy give=GER-S3fs-**O3ms**
         "The girl gave the letter to the boy."

    b. ʔɨti gʷal $\boxed{\textbf{n}}$=əta dəbdabe **n**=əti wədi hib-a-$\boxed{\textbf{ta}}$
         that-fs girl **N**=that-fs letter **N**=that-ms boy give=GER-S3fs-**O3fs**
         "The girl gave the boy the letter."

The purpose of this paper is to account for the differing behavior of the object marker in transitive and ditransitive constructions. I claim that object marking in Tigrinya is in fact always obligatory when possible and that the optionality observed in ditransitives constructions is in fact only apparent. The presence or absence of object marking, and which argument it cross-references, reliably betrays one of two distinct ditransitive frames.

Concerning the pattern in (1) and (2), the Theme is always a direct argument and, as the only argument, will always be cross-referenced by object marking. The apparent optionality in ditransitive constructions results from the ability of the Goal to be either a direct or indirect argument. This alternation, shown between the examples in each of (3) and (4), is masked by the ambiguity of the *N*-marker as a differential object marker on a direct argument or a preposition on an indirect argument.[3] In this way, we are able to understand the otherwise obligatory nature of object marking in Tigrinya.

Formally, it will be argued that Tigrinya employs the two ditransitive argument structures below, which are based on the asymmetric ditransitive structures originally proposed by Marantz (1993) and discussed more recently by Bruening (2010). In (5) the Goal is ntroduced via an ad-

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[3]A similar generalization was formulated by Jake (1980) for the relatively closely related language Tigré in which Goal arguments introduced by a preposition do not trigger object marking.

ditional functional verbal head (Appl^0), making it a direct argument. Alternatively, as Miyagawa and Tsujioka (2004:14) also propose for Japanese, the Goal can be introduced via a prepositional phrase, making it an indirect argument in (6). Treating object marking as the result of an Agree relationship (Chomsky 2000, 2001) between the cross-referenced argument and some functional verbal head (here, v^0), the key to the analysis is simply that object marking is obligatory (modulo the specificity of the argument) and always cross-references the highest direct argument.

(5)   *NP+NP Frame*
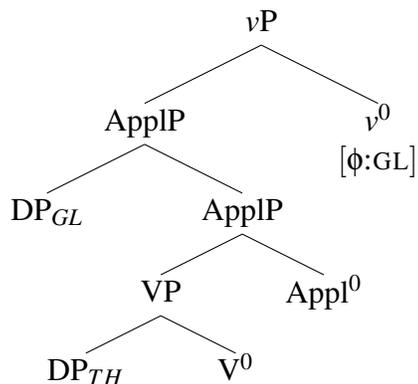
(6)   *PP+NP Frame*
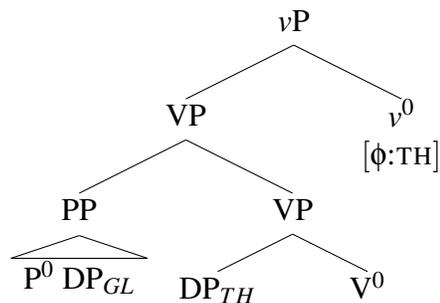
Superficially, the ditransitive data in (3) and (4) suggest that Tigrinya is similar to Bantu symmetrical object languages (Bresnan and Moshi 1993, among many others). Both arguments display the primary object property of triggering object marking. A proper account of the object marking pattern, however, reveals that Tigrinya is in fact more like English (e.g., Bruening 2010; Marantz 1993), Greek (Anagnostopoulou 2003), and Japanese (Kitagawa 1994; Miyagawa and Tsujioka 2004) with respect to its employment of multiple asymmetrical ditransitive frames. Tigrinya resembles Japanese further in that these are two languages in which the presence of two ditransitive frames are masked by a surface ambiguity.

Before moving on, the remainder of this section will present some background information on Tigrinya and further discussion of the properties of the differential object marker and object marking in the language. Section 2 will present the proposed analysis for the data in (1)–(4) and a brief discussion of two potential alternative analyses. In section 3, some of the empirical predictions made by the proposed analysis with respect to available binding relationships and interpretive

effects will be explored. These predictions are borne out and, crucially, the observed patterns correspond directly the observed object marking pattern. A potential issue with the proposed analysis related to word order is accounted for in section 4. Section 5 concludes.

1.2 Background on Tigrinya

Tigrinya is an Ethio-semitic language spoken in Eritrea and Northern Ethiopia. This makes it distantly related to Arabic and Hebrew and more closely related to Tigré and Amharic. It is an SOV word-order language with what looks like nominative-accusative case marking.

The prefix *N* on direct object DPs is often referred to as a case marker in recent literature (Kievit and Kievit 2009; Nazareth 2007; Weldeyesus 2004). It has been called each of accusative, objective, and dative case. This paper does not take a definitive stance on the formal identity of *N* in transitive constructions like (7) below. Instead, it will simply be recognized that the *N*-marker is descriptively a differential object marker (e.g., Aissen 2003) that appears on [+specific] arguments (7a) but not on [-specific] arguments like the bare NP in (7b).[4]

(7) a. ʔɨti   səbaj **n**=əta   dəbdabe tsɨħif-u-**wa**
         that-ms man **N**=that-fs letter   write=GER-S3ms-**O3fs**
         "The man wrote the letter."

     b. ʔɨti   səbaj dəbdabe tsɨħif-u
         that-ms man letter   write=GER-S3ms
         "The man wrote a letter."

Unlike Theme arguments, Goal arguments are always *N*-marked. However, the *N*-marker on Goals is not so well-behaved. An *N*-marked Goal that is not cross-referenced by object marking can be [+specific] as in (8a) with the proper name *Keffy* or [−specific] as in (8b) with the bare NP

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[4]The term *specific* is notoriously hard to pin down, and I can do no more justice to the issue than what can be found, for example, in Diesing (1992). Distinguishing between notions of *specificity* and *definiteness* at least does seem to be the right choice for Tigrinya. The following example shows that an indefinite quantified DP *ħadə wədi* "a boy" can be *N*-marked and cross-referenced by object marking, which it turns means it is necessarily interpreted as [+specific].

(1) ʔɨti   məmhɨr tɨmali   **nɨ**=ħadə   təməharay mətsħaf hib-u-**wo**
     that-ms teacher yesterday **N**=one-ms student   book   give=PRF-S3ms-**O3ms**
     "Yesterday the teacher gave a book [to] a (certain) student."   (adapted from Nazareth 2007:10)

wədi "boy". This suggests that the *N*-marker, specifically on Goal arguments, does not exclusively serve as a differential object marker.

(8) a. Ɂɨta   gʷal **n**=kefi   dəbdabe hib-a
         that-fs girl **N**=Keffy-ms letter   give=GER-S3fs
         "The girl gave a letter to Keffy."

     b. Ɂɨta   gʷal **n**=wədi dəbdabe hib-a
         that-fs girl **N**=boy letter   give=GER-S3fs
         "The girl gave a letter to some boy."

Concerning the relationship between object marking and the *N*-marker, the data in (1)–(4) show that the presence of object marking entails the *N*-marker, but not vice versa. An unsurprising exception is when the cross-referenced DP is a null-pronominal (9a). But as (9b) shows, the *N*-marker surfaces when the pronoun is spelled out.

(9) a. riɁaj-∅-**a**
         see=PRF-S3ms-**O3fs**
         "He saw her."
     b. nɨsu   **nɨ**=ʕɁa riɁaj-∅-**a**
         pro-3ms **N**=pro-3fs see=PRF-S3ms-**O3fs**
         Intended: HE saw HER."

If either a Goal or a Theme is *N*-marked and cross-referenced by object marking, that argument must be interpretable as [+specific]. Additionally, there is evidence that, under these conditions, the argument undergoes a local raising operation akin to object shift. It is not obligatory for *N*-marked objects to precede adverbs, however, the canonical word order with neutral prosody is as shown in (10) where the object has been displaced leftward away from the verb over an adverbial.

(10) Ɂɨti   səbɁaj **n**=əta   dəbdabe sənuj   tsɨħif-u-**wa**
      that-ms man   **N**=that-fs letter   Monday write=GER-S3ms-**O3fs**
      "The man wrote the letter on Monday."

This is plausibly linked both to the claim in Nazareth (2007) that an argument cross-referenced with object marking is discourse-prominent and the claim in Diesing (1992) that a DP interpreted as [+specific] must evacuate the VP proper in order to escape existential closure over the verbal event argument.

As for the object marker specifically, we saw from the data in (1) and (2) that it is obligatory when possible. This is like Tigré according to Jake (1980) and unlike Amharic where object marking is optional according to Baker (2012) and Kramer (to appear) . When present, the object marker may appear only as a suffix on the verb (11). This is as opposed to subject agreement which is realized on verbs and auxiliaries simultaneously.

(11)   a.   ʔɨti   səbʔaj **n**=əta   dəbdabe tsɨħif-u-**wa**   ʔal-o
           that-ms man-s **N**=that-fs letter   write=GER-S3ms-**O3fs** Aux=S3ms
           "The man has written the letter."

       b.   * ʔɨti   səbʔaj **n**=əta   dəbdabe tsɨħif-u-**wa**   ʔal-o-**wa**
           that-ms man-s **N**=that-fs letter   write=GER-S3ms-**O3ms** Aux=S3ms-**O3fs**
           "The man has written the letter."

As shown in (12), only one object marker is permitted per clause. It is not possible to cross-reference both the Goal and Theme simultaneously on the same verb. This is regardless of the order of the object marking morphemes.

(12)   a.   * ʔɨti   gʷal **n**=əta   dəbdabe **n**=əti   wədi hib-a-**ta-to**
           that-fs girl **N**=that-fs letter   **N**=that-ms boy give=GER-S3fs-**O3fs-O3ms**
           Intended: "The girl gave the boy the letter."

       b.   * ʔɨti   gʷal **n**=əta   dəbdabe **n**=əti   wədi hib-a-**to-ta**
           that-fs girl **N**=that-fs letter   **N**=that-ms boy give=GER-S3fs-**O3ms-O3fs**
           Intended: "The girl gave the boy the letter."

Finally, it has recently been argued rather extensively for Amharic both that object marking is clitic-doubling (Kramer to appear) and that it is object agreement (Baker 2012). The status of Tigrinya object marking is, as of yet, unclear. Like Amharic, Tigrinya object marking shows behavior considered to be diagnostic of both clitics and agreement. Either position, however, would be compatible with the analysis to be presented below where a set of φ-features on the cross-referenced argument are transferred up the tree and this is triggered via an Agree relationship.[5] The exact identity of the object marker and the mechanisms involved in object marking remain open questions for future research, but for concreteness we will assume the object marker is generated

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[5]See Anagnostopoulou (2003), Nevins (2011), and Uriagereka (1995) for movement analyses of clitic-doubling, which could be executed with an Agree operation.

in verbal functional head that I will assume is v^0.
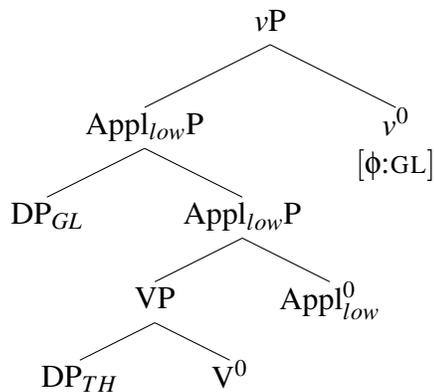
2 Tigrinya Object Marking

From the transitive constructions in (1) and (2), we learn that object marking in Tigrinya is oblig-
atory when it is possible. This section presents an analysis demonstrating that the same is true
in ditransitive structures. Section 2.1 briefly explores and argues against two potential analyses
that do not require the postulation of multiple and distinct ditransitive frames. The first of these
supposes an alternation between a high and low applicative while the second allows movement to
derive different object marking patterns. Section 2.2 presents the proposed analysis in which the
apparent optionality in Tigrinya ditransitive structures is the result of underlying argument struc-
ture alternations. Object marking is triggered by the highest [+specific] granted that it is also a
direct argument.

2.1 Two Potential Analyses

2.1.1 A High/Low Applicative Alternation

A potential approach to handling the relevant data might suppose that Tigrinya is able to employ
either a high applicative head or a low applicative head to introduce the Goal (cf. Pylkkänen 2002).
In this type of system, the Goal would always be a direct argument, but it would vary between a
high and low position relative to the functional head associated with object marking (still v^0 for
exposition) as shown in (13) and (14).

(13) *Low Applicative Goal*

vP
Appl$_{low}$P v^0
                     [ɸ:GL]
DP$_{GL}$ Appl$_{low}$P
            VP   Appl$^0_{low}$
         DP$_{TH}$ V^0

(14) *High Applicative Goal*

Appl$_{high}$P
DP$_{GL}$ Appl$_{high}$P
              vP   Appl$^0_{high}$
            VP v^0
                     [ɸ:TH]
       DP$_{TH}$ V^0
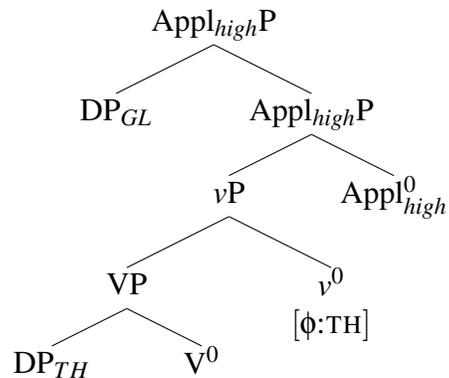
Assuming that object marking is obligatory when it is possible, one needs only to assert that the Goal is in the low position when it is cross-referenced by an object marker (13), but when it is in the high position (14), it is simply outside of the relevant domain for object marking. In the latter case, the Theme is the highest relevant direct argument and only it could trigger object marking.

We have evidence against this analysis in the fact that Tigrinya has a high applicative position in Tigrinya, but it is of a different nature than the Goal argument of the ditransitive verbs under consideration. There is a separate morphological series that increases the valency of verbs to accommodate recipient, benefactive, malefactive, instrumental, and locative arguments among others (for a comprehensive overview see Nazareth 2011:ch.4). The *N*-marked argument *nəta səbəjti* "the woman" in (15) is an applied argument of the verb and is cross-referenced by the φ-agreeing verbal suffix *-la*.

(15)   ʔɨti   səbʔaj **n**=əta   səbʔəjti dərho ʃəjt'-u-**la**
              that-ms man   **N**=that-fs woman chicken sell=GER-S3ms-**A3fs**
              "The man sold a chicken to/for/on the woman"   (adapted from Nazareth 2011:120)

This same morphological series, which introduces an applied argument above, cannot cross-reference the Goal of a verb that subcategorize for a Goal (see also Nazareth 2011:107–108). Compare the example in (16) to the grammatical example above in (3a).

(16)   * ʔɨta   gʷal **n**=əti   wədi dəbdabe hib-a-**lo**
              that-fs girl-s **N**=that-ms boy-s letter   give=GER-S3fs-**A3ms**
              Intended: "The girl gave the boy a letter."

This serves to illustrate that the Goal argument of true ditransitive verbs cannot be a high applicative. This is a role that Tigrinya encodes differently and which is in complementary distribution with the object marking phenomenon of interest in this paper.

2.1.2 *Agreement at the Edge*

Where the previous analysis determined the highest available argument through base-generation, a second alternative could allow movement to do this work. Recall from section 1.2 that an *N*-marked Theme might undergo a local raising operation. This means that the highest *N*-marked

argument could be derived as illustrated in (17) and (18).

(17) *In-situ Theme*

vP
├── ApplP
│   ├── DP$_{GL}$
│   └── ApplP
│   ├── VP
│   │   ├── DP$_{TH}$
│   │   └── V^0
│   └── Appl^0
└── v^0
     [ɸ:GL]

(18) *Ex-situ Theme*

vP
├── XP
│   ├── DP$_{TH}$
│   └── ApplP
│   ├── DP$_{GL}$
│   └── ApplP
│   ├── VP
│   │   ├── ~~DP$_{TH}$~~
│   │   └── V^0
│   └── Appl^0
└── v^0
     [ɸ:TH/GL]
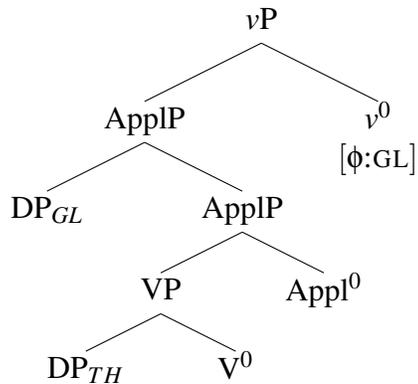
In essence, this would make Tigrinya very much like Hindi according Bhatt and Anagnostopoulou (1996). Just as the $-ko$ suffix in Hindi is ambiguous between a dative case marker and a differential object marker, the Tigrinya $n-$ prefix would also be ambiguous between dative case and the differential object marker.

In this scenario, Tigrinya would have the single underlying ditransitive frame in (17) where the Goal is the highest base-generated direct argument. If we assume that object marking is the result of v^0 probing the highest [+specific] argument, it is this structure that underlies examples in which the object marker cross-references the Goal and the Theme is not *N*-marked (3a).

The structure in (18) is derived by having a [+specific] Theme with the differential object marker raise to a position between the Goal and v^0. The Theme is now the highest [+specific] argument, which means that this structure underlies those cases in which the object marker cross-references the Theme and both arguments are *N*-marked (4b). This structure must also underlie those examples in which both arguments are *N*-marked and the object marker cross-references the Goal (4a). It is more difficult to see how this would work, but one might imagine that the Goal and Theme are equidistant from v^0 making the choice of which argument to cross-reference by object marking truly optional.[6]

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[6]A trivial variant on this type of analysis might suppose that the Goal raises to be cross-referenced by object

The real issue for this analysis arises with the example above in (8a) and the example below in (19) repeated from (3b) with a [+specific] Goal that is not cross-referenced by object marking.

(19)   ʔɨta   gʷal **n**=əti   wədi dəbdabe hib-a
           that-fs girl-s **N**=that-ms boy   letter   give=GER-S3fs
           "The girl gave a letter to the boy."
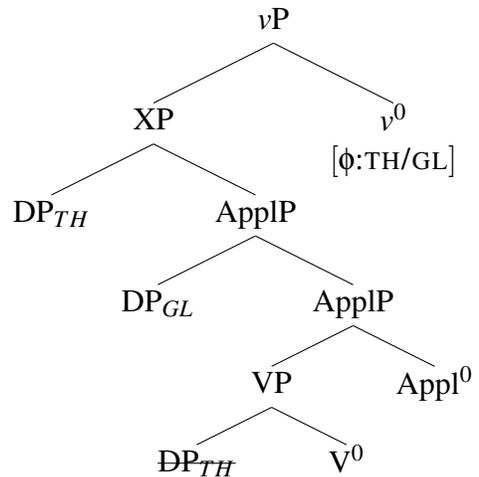
It is not obvious how one would block agreement with the Goal in these examples in a non-stipulative way. The underlying argument structure would be as in (17) with the non-*N*-marked Theme in-situ. The Goal here is the highest argument and, because it is [+specific], is expected to trigger object marking.

2.2   Hidden Argument Structure Alternations

Part of what was demonstrated in the previous subsection is that being a [+specific] argument is a necessary but insufficient condition for triggering object marking. Something extra is required to account for the fact that sometimes the Goal does and does not trigger object marking. The analysis presented in section 2.2.1 achieves exactly this by suggesting that Tigrinya employs two distinct ditransitive argument structures in which the Goal is visible or invisible to the Agree relationship responsible for object marking. This alternation is obscured by the ambiguity of the *N*-marker as either the differential object marker (N_K) or a preposition (N_P). Section 2.2.2 demonstrates how this system regularizes the apparent optionality observed in Tigrinya ditransitive constructions. As we will see, object marking is triggered only in those cases when the highest [+specific] DP is also a direct argument.

2.2.1   Two Ditransitive Frames

The first of the two argument structures is the expected NP+NP frame shown in (20). Here, the Goal is a direct argument that is marked with the differential object marker N_K. Correcting for linearization, this is exactly the architecture that Bruening (2010:521) proposes for double object constructions.

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marking. This analysis would still be unable to account for the data to be discussed in (19).

(20)

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                    vP
                   /  \
               ApplP   v⁰
              /    \   [φ:GL]
          DP_GL   ApplP
                 /    \
               VP     Appl⁰
              /  \
          DP_TH  V⁰
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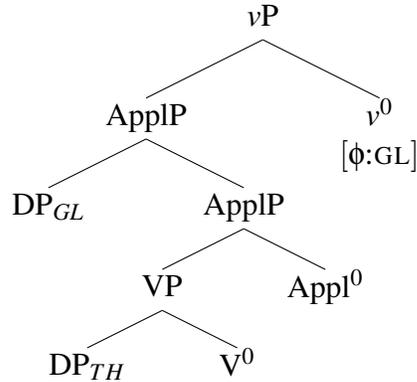
The Goal is a direct argument in this structure and, because it is the higher of the two arguments in this configuration, it will necessarily be the argument probed by v^0 and will trigger object marking. In other words, employing this NP+NP argument structure necessarily results in object marking that cross-references the Goal.

The alternative argument structure that I am arguing for is the PP+NP frame in (21). In this frame, the Goal is a prepositional object and the *N*-marker that appears on the Goal is not a dative case marker as Bhatt and Anagnostopoulou (1996) argue for $-ko$ in Hindi but a prefixal preposition N$_P$ in the way that Miyagawa and Tsujioka (2004) argue for $-ni$ in Japanese.

(21)

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                        vP
                       /  \
                     VP    v⁰
                    /  \   [φ:TH]
                 PP     VP
                /  \   /  \
            P⁰ DP_GL DP_TH V⁰
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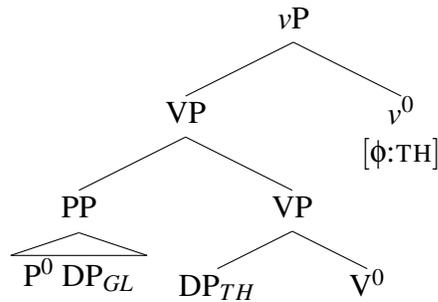
As the object of a preposition the Goal is an indirect argument of the verb and, assuming that PPs are locality domains (Abels 2003; Baltin 1978, 1981; van Riemsdijk 1978), is inaccessible to a probe from v^0.[7] This means that there is only one direct argument available for an Agree relationship with v^0 in this structure, which is the Theme. Therefore, object marking in the PP+NP

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[7]That this is the right analysis for these constructions is evidenced by examples like those in (1), which have been adapted from Mason (1996:31). The contrast shows that PPs in Tigrinya do in fact otherwise serve as barriers to agreement.

(1) a. b=ɨti   bəʁ'li məts'ʔ-u
         by=that-ms donkey come=GER-S3fs
         "He came by way of the mule."

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frame can only be triggered by the Theme.

A difference worth noting between the PP+NP frame above and the (e.g., English) NP+PP frame presented in Bruening (2010:521) and Marantz (1993:120) is the position of the PP. The PP in (21) is represented as an extended projection of the VP as opposed to appearing as the complement of the verb. Miyagawa and Tsujioka (2004:14) suggest the same for Japanese, but this choice is motivated for Tigrinya primarily by the word order facts. While accounting for these facts in section 4, we will see evidence that this is in fact the correct structure.[8]

The main point to take away from the discussion here is that each of the two argument structures being proposed necessarily results in object marking that cross-references either only the Goal or only the Theme. The PP+NP frame is necessarily underlying sentences in which object marking cross-references the Theme. Likewise, the NP+NP frame is necessarily underlying sentences in which object marking cross-references the Goal. If this is correct, then the non-optionality of object marking in transitive sentences can be preserved and the apparent optionality of object marking in the ditransitive sentences in (3) and (4) can be captured straightforwardly as an alternation between the two argument structures above.

2.2.2 *Resolving the Puzzle*

Recall the data that represent the proposed puzzle, which have been repeated in (22) and (23). In contrast to transitive constructions, object marking appears to have a degree of optionality in ditransitive constructions.

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      b.   * b=ɨti   bəʁ'li məts'ʔ-u-**wo**
          by=that-ms donkey come=GER-S3fs-**O3ms**
          Intended: "He came by way of the mule."

Additionally, while the analysis being proposed is reminiscent of the null-preposition analysis for dative arguments in Rezac (2008), positing a null preposition is an unnecessary stipulation for Tigrinya. The data in (1) reveal that there are prefixal prepositions in the language and they are barriers for Agree.

[8]A number of structural and hierarchical predictions are also made given the structure in (21) that are not examined here. As an SOV language, there is a strong precedence constraint on binding that interacts with the observed word order facts (see section 4) that makes testing these predictions difficult. However, it is recognized that this is an issue that deserves further attention.
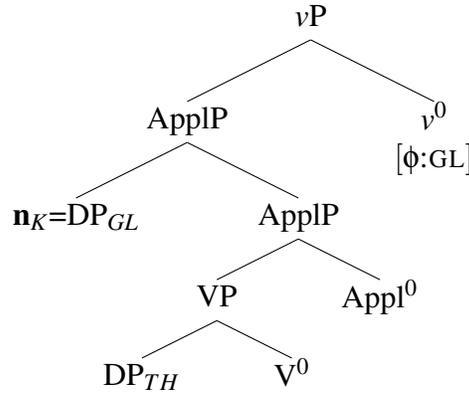
(22) a. ʔɨta   gʷal **n**=əti   wədi dəbdabe hib-a-**to**
       that-fs girl-s **N**=that-ms boy-s letter   give=GER-S3fs-**O3ms**
       "The girl gave the boy a letter."

   b. ʔɨta   gʷal **n**=əti   wədi dəbdabe hib-a
       that-fs girl-s **N**=that-ms boy-s letter   give=GER-S3fs
       "The girl gave a letter to the boy."

(23) a. ʔɨti   gʷal **n**=əta   dəbdabe **n**=əti   wədi hib-a-**to**
       that-fs girl **N**=that-fs letter   **N**=that-ms boy give=GER-S3fs-**O3ms**
       "The girl gave the letter to the boy."

   b. ʔɨti   gʷal **n**=əta   dəbdabe **n**=əti   wədi hib-a-**ta**
       that-fs girl **N**=that-fs letter   **N**=that-ms boy give=GER-S3fs-**O3fs**
       "The girl gave the boy the letter."

As stated earlier, we will conceive of the object marker as the result of an Agree relationship between v^0 and the highest [+specific] direct argument. More specifically, assume that v^0 probes the highest direct argument. In the case that this argument is [+specific], it will trigger object marking. If the argument that is probed [−specific], object marking is not triggered. Now, by treating the optionality in each of (22) and (23) as an alternation between argument structures, then these examples become two instantiations of the same puzzle. What we are actually seeing in the examples above is the NP+NP frame and probing of the Goal in the (a) variants and the PP+NP frame and probing of the Theme in the (b) variants. The only substantive difference between them involves the specificity of the Theme and, therefore, whether it is able to trigger object marking. We will now examine each case in turn.

Beginning with the data in (22), when the Goal argument alone is *N*-marked, it is apparently optionally cross-referenced by object marking. In reality, when the Goal is cross-referenced by object marking as in (24a) below, it is because it is the highest direct argument and is [+specific]. Given the two available structures, this in turn means that the underlying argument structure for (24a) must be the NP+NP frame shown in (24b) and that the Goal is marked with the differential object marker N_K.

(24) a. Ɂɨta   gʷal **n**=əti   wədi dəbdabe hib-a-**to**
         that-fs girl-s **N**$_K$=that-ms boy-s letter   give=GER-S3fs-**O3ms**
         "The girl gave the boy a letter."

b.

```
                                              vP
                                          ╱        ╲
                                    ApplP              v⁰
                                 ╱        ╲          [ɸ:GL]
                          n_K=DP_GL          ApplP
                                          ╱        ╲
                                       VP              Appl⁰
                                    ╱      ╲
                                DP_TH        V⁰
```

When the Goal is an *N*-marked but not cross-referenced by object marking as in (25a), it is because the Goal is an indirect argument and unable to trigger object marking. This means that the underlying argument structure for this sentence must be the PP+NP frame and the Goal is marked with the prepositional *N$_P$*.

(25) a. Ɂɨta   gʷal **n**=əti   wədi dəbdabe hib-a
         that-fs girl-s **N**$_P$=that-ms boy-s letter   give=GER-S3fs
         "The girl gave a letter to the boy."

b.

```
                                              vP
                                          ╱        ╲
                                    VP                 v⁰
                                 ╱      ╲
                              PP           VP
                          ╱      ╲       ╱    ╲
                    n_P=DP_GL   DP_TH        V⁰
```
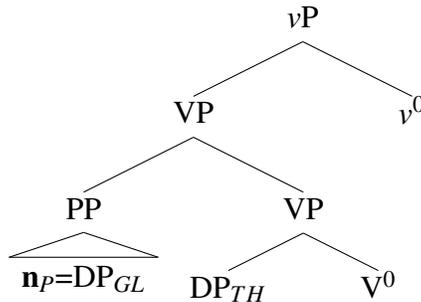
Recall that it was this example that the analysis in section 2.1.2 was unable to handle. It finds a natural explanation here, however. Because the Theme, as the only direct argument, is the highest direct argument in this structure, only it could trigger object marking. But, because it is [−specific] in this particular example, it simply does not trigger object marking.

Moving on to the contrast in (23) where the Goal and the Theme are both *N*-marked, object marking is obligatory, but it appears to optionally cross-reference either argument. This apparent optionality can be given the exact same analysis that was just presented for the alternation in (22).

Again, each of the observed object marking patterns corresponds to exactly one of the argument structures being proposed.

When both arguments are *N*-marked but object marking cross-references the Goal as in (26a), it is because the goal is the highest direct argument and is [+specific]. Therefore, the underlying argument structure must be the NP+NP frame in (26b) and the Goal is marked with the differential object marker N_K.

(26) a. ʔɨti   gʷal **n**=əta   dəbdabe **n**=əti   wədi hib-a-**to**
          that-fs girl **N**$_K$=that-fs letter   **N**$_K$=that-ms boy give=GER-S3fs-**O3ms**
          "The girl gave the boy the letter."

  b.

```
                              vP
                          /        \
                      ApplP          v⁰
                    /      \        [φ:GL]
            n_K=DP_GL      ApplP
                         /       \
                       VP        Appl⁰
                     /    \
             n_K=DP_TH    V⁰
```
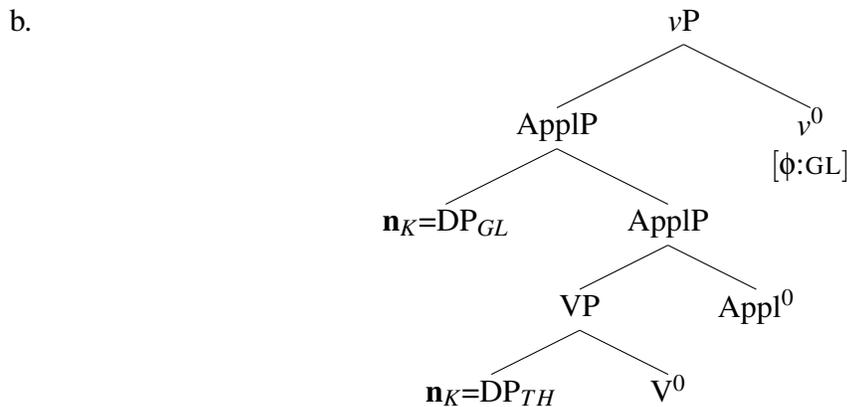
The difference between (26a) here and (24a) above lies purely in the specificity of Theme. Here, the Theme is [+specific] and so it too will carry the differential object marker N_K, but because the Goal is structurally higher, the Theme is unable to trigger object marking.[9]

Finally, when both arguments are *N*-marked but object marking cross-references the Theme as in (27a), then the exact same situation arises that was seen in (25a). The underlying argument structure must be the PP+NP frame. It is only in this configuration that v^0 can probe past the Goal to the Theme. Recall that this is because the Goal is invisible for Agree by virtue of being an indirect argument. This example differs from (25a) in that the Theme is now [+specific] and so, when probed by v^0, will trigger object marking.

---

[9]The reader may have also noticed that the order of the Goal and Theme switch in the examples in (24a) and (26a). I will return to this fact in section 4 and relate it to the operation of object shift associated with the differential object marker observed in section 1.2.

(27) a. ʔɨti gʷal **n**=əta   dəbdabe **n**=əti   wədi hib-a-**ta**
         that-fs girl N_K=that-fs letter N_P=that-ms boy give=GER-S3fs-**O3fs**
         "The girl gave the letter to the boy."

   b.

```
                                    vP
                                   /  \
                                VP      v⁰
                               /  \    [φ:TH]
                            PP      VP
                           /  \    /  \
                   nₚ=DP_GL   n_K=DP_TH   V⁰
```
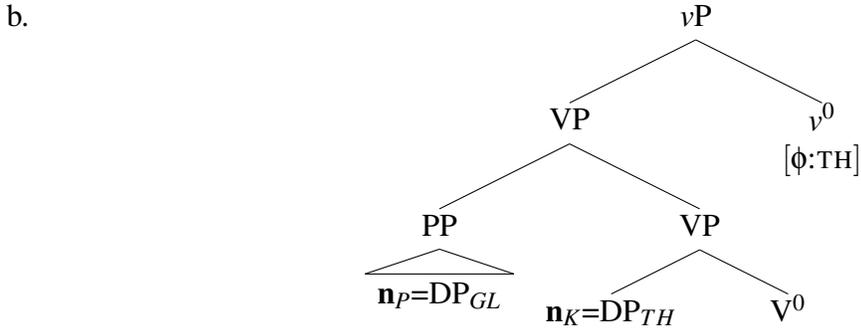
Thus, what was apparent irregularity and optionality in the Tigrinya object marking system has been regularized by assuming that the language employs the two argument structures proposed in this section. In Tigrinya, object marking of the highest direct argument is obligatory, modulo that argument's specificity. Any optionality that might exist must be postulated at the level of which argument structure is employed.[10]
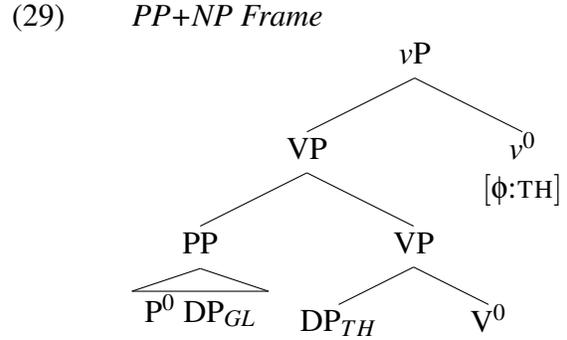
3   Some Structure Sensitive Predictions

Recall the two ditransitive structures repeated in (29) and (30) that were proposed for Tigrinya in the previous section. It was argued that the observed object marking pattern reliably betrays which of these argument structures underlies any given construction.

---

[10]There is a general remaining puzzle in the fact that the examples in (1) are ungrammatical. It is not clear why it cannot be the case that neither argument is *N*-marked.

(1) a. * ʔɨta   gʷal wədi dəbdabe hib-a
           that-fs girl boy letter   give=GER-S3fs
           Intended: "The girl gave a boy a letter."
    b. * ʔɨta   gʷal dəbdabe wədi hib-a
           that-fs girl letter   boy give=GER-S3fs
           Intended: "The girl gave a boy a letter."

This might simply be related to the generalization formulated in Alexiadou and Anagnostopoulou (2001) that only a single argument can remain in-situ in the VP. A way of enforcing this would be to assume that bare NPs necessarily undergo pseudo-incorporation (Dayal 2011). Because the Goal is generated in Spec,ApplP, it is not able to be undergo pseudo-incorporation. This means that, if one argument is to remain downstairs in the NP+NP frame, it can only be the Theme. If they are both to be left downstairs, the Goal has to be in a PP in the PP+NP frame. That being said, there is no independent evidence that bare NPs can undergo pseudo-incorporation in Tigrinya. Therefore, further work on these examples will be necessary in the future.

(28)   *NP+NP Frame*

```
                vP
              /    \
          ApplP     v⁰
          /    \   [φ:GL]
      DP_GL   ApplP
              /    \
            VP     Appl⁰
           /  \
        DP_TH  V⁰
```

(29)   *PP+NP Frame*

```
                vP
              /    \
            VP      v⁰
           /  \    [φ:TH]
         PP    VP
        / \   /  \
      P⁰ DP_GL  DP_TH  V⁰
```
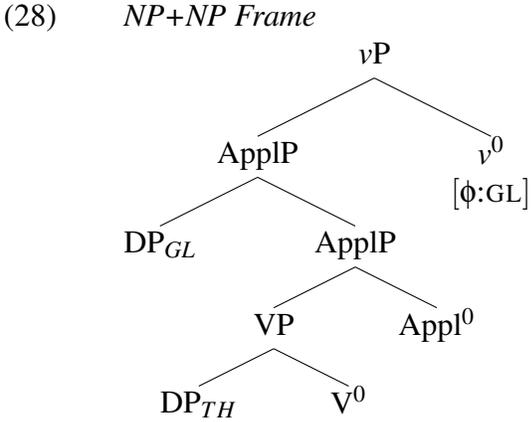
If this is the case, it should be possible to find independent empirical evidence of the alternation between these two structures. Importantly, if the object marking pattern corresponds to each argument structure, then any such empirical effects should also correspond directly to the presence or absence of object marking and which argument it cross-references.

This section demonstrates that this is exactly the case. In section 3.1, we see that the ambiguity of the *N*-marker between the differential object marker and a preposition is predictable and correlates with the observed object marking pattern. Section 3.2 shows the presence of semantic effects comparable to the CAUSE-HAVE interpretation in English (Green 1974; Harley 2002; Beck and Johnson 2004) and numerous other languages that correlates with object marking. Finally, section 3.3 shows that there are binding asymmetries that are a function of the observed object marking pattern.

3.1   The Specificity of the Goal

The analysis presented in section 2.2.2 relies on the *N*-marker that appears on Goals being ambiguous between the differential object marker in the NP+NP frame and a preposition in the PP+NP frame. It is this ambiguity that masks the presence of the two ditransitive frames and makes Tigrinya different, for example, from Hindi. Some initial evidence for this ambiguity was seen in section 1.2. Recall that *N*-marked Goals that are not cross-referenced by object marking may be either [+specific] or [−specific]. The examples in (30) below are repeated from (8).

17

(30) a. ʔɨta gʷal **n**=kefi dəbdabe hib-a
that-fs girl **N**$_P$=Keffy-ms letter give=GER-S3fs
"The girl gave a letter to Keffy."

b. ʔɨta gʷal **n**=wədi dəbdabe hib-a
that-fs girl **N**$_P$=boy letter give=GER-S3fs
"The girl gave a letter to some boy."

Now consider the contrast in acceptability that results from cross-referencing the same Goal arguments with object marking. The proper name *Keffy* can be cross-referenced by object marking as shown in (31a). On the other hand, the bare NP *wədi* "boy" in (31b), even when interpreted as a specific or certain boy, cannot be cross-referenced by object marking.

(31) a. ʔɨta gʷal **n**=kefi dəbdabe hib-a-**to**
that-fs girl **N**$_K$=boy letter give=GER-S3fs-O3ms
"The girl gave Keffy a letter."

b. * ʔɨta gʷal **n**=wədi dəbdabe hib-a-**to**
that-fs girl **N**$_K$=boy letter give=GER-S3fs-O3ms
Intended: "The girl gave a (specific) boy a letter."

The specificity constraint in (31), which is absent from (30), can be understood under the current analysis where the *N*-marker has one identity when the Goal is cross-referenced by object marking and a different identity when it is not. According to the analysis above, whenever the Goal is not cross-referenced by object marking as in (30), it is an indirect argument marked with the prepositional *N*-marker in the PP+NP frame. For this reason, we correctly predict that there should not be any constraints on the specificity of the Goal. When the Goal is cross-referenced by object marking as in (31), it it because it is a direct argument in the NP+NP frame. This in turn means that it must be marked with the differential object marker and so should require the Goal to be [+specific].

The contrasts above support the claim that the *N*-marker is ambiguous between a differential object marker and a preposition, the latter of which lacks a specificity requirement and does not co-occur with object marking. In conjunction with the observation that the behavior of the *N*-marker corresponds to the observed object marking pattern, it is fully consistent with the hypothesis that

each flavor of the *N*-marker corresponds to one of the ditransitive frames being proposed.

3.2 *The* CAUSE-HAVE *Interpretation*

It has been known at least since work by Green (1974) that the English NP+NP frame and NP+PP frame are not interpretively parallel. There is something of an animacy constraint on the Goal in the NP+NP frame (32) that is absent from the NP+PP frame (33).

(32) a.   Sam sent Kim the letters.
     b.   # Sam sent Philadelphia the letters.
(33) a.   Sam sent the letters to Kim.
     b.   Sam sent the letter to Philadelphia.

The asymmetries can be explained in Harley's (2002) symmetric analysis of ditransitive verbs. The NP+NP frame, but not the NP+PP frame, contains a constituent with a predicate HAVE that has a semantics along the lines of $\lambda x \lambda y.x$ *to the possession of y*. The semantic anomaly detected in (32b) comes from the oddness of expressing the idea that Philadelphia might be capable of possessing something.

If similar effects were found in Tigrinya such that these effects also corresponds to the object marking pattern, it would support the hypothesis that there are underlyingly two argument structures. As the data below show, this prediction is borne out in full.

The Goal below in (34), *Asmera*, which is the capital of the country Eritrea, is inanimate. According to the analysis being proposed, because the Goal is not cross-referenced by object marking in (34a), it must be the object of a preposition in the PP+NP frame. This example was reported to be completely acceptable. The example in (34b) differs minimally in that the Goal is now cross-referenced by an object marker. This signals the presence of the underlying NP+NP frame. As indicated, this sentence was reported to be unacceptable due to the semantic anomaly of sending Asmera letters.

(34) a. ʔɨta gʷal **nɨ**=ʔasməra dəbdabe sədid-a
that-fs girl **N**$_P$=Asmera letter send=GER-S3fs
"The girl sent a letter to Asmera."

b. # ʔɨta gʷal **nɨ**=ʔasməra dəbdabe sədid-a-**ta**
that-fs girl **N**$_K$=Asmera letter send=GER-S3fs-**O3fs**
Literally: "The girl sent Asmera a letter."

The same pattern is found for the minimal pair of (35) in which both the Goal and Theme are *N*-marked. When object marking cross-references the Theme (35a), the underlying structure is the PP+NP frame. The animacy constraint is not active in this construction and the sentence is perfectly acceptable. The sentence in (35b) differs minimally in that the object marker now cross-references the inanimate Goal *Asmera*. Because object marking cross-references the Goal, the underlying structure must be the NP+NP frame. The animacy constraint on this constructions is violated by the Goal *Asmera* which produces a semantic anomaly that in turn results in unacceptability.[11]

(35) a. ʔɨta gʷal **n**=ətən dəbdabe **n**=ʔasməra sədid-a-**tən**
that-fs girl **N**$_K$=that-fp letter **N**$_P$=Asmera send=GER-S3ms-**O3fp**
"The girl sent the letters to Asmera."

b. # ʔɨta gʷal **n**=ətən dəbdabe **n**=ʔasməra sədid-a-**ta**
that-fs girl **N**$_K$=that-fp letter **N**$_K$=Asmera send=GER-S3ms-**O3fs**
Literally: "The girl sent Asmera the letter."

The data presented here suggest that there are in fact two underlying ditransitive argument structures with different semantics. These facts also corroborate the claim above that what I have called the NP+NP frame is similar to the double object construction of Marantz (1993) and Bruening (2010), which contains some verbal head or syntactic element that is absent from the PP+NP frame.

3.3 Condition A Effects

Barss and Lasnik (1986), Larson (1988), and Pesetsky (1995) observed a number of structural asymmetries between the Goal and Theme arguments in the English NP+NP and NP+PP frames.

---

[11] Just as with the English example in (32b), the constructions in (34b) and (35b) can be made acceptable in as far as *Philadelphia* or *Asmera* can be conceived of as collection of individuals with the capacity for possession.

This is illustrated below in (36) with Condition A effects. In the NP+NP frame (36a), the Goal *Pam* is able to bind a reflexive anaphor in the Theme. The same is not true in the NP+PP frame (36b). The prepositional Goal can no longer bind into the Theme.

(36)   a.   Tim gave Pam$_1$ the pictures of herself$_1$.
       b.   * Tim gave the pictures of herself$_1$ to Pam$_1$.

If the shape of the two ditransitive structures in (28) and (29) are basically correct, then we should find that facts similar to those above are also found in Tigrinya. Crucially, any asymmetry should be a function of the observed object marking, as this is being argued to betray the underlying argument structure and, thus, the relationship of the Goal to the Theme. This is exactly the case.

When object marking cross-references the Theme, and thus the PP+NP frame is employed, a violation of Condition A is predicted if the Theme is a reflexive anaphor that takes the Goal as its antecedent. The underlying structure will be as in (29) above, where the Goal is buried inside of a prepositional phrase and does not c-command the Theme. The example in (37) shows this predictions borne out. The Theme *gəzaʔ riʔisu* "himself" is a reflexive anaphor, but cannot be coreferential with the Goal *Keffy*. This construction is ungrammatical.

(37)   * ʔita   gʷal **n**=kefi$_1$ **n**=ətən   naj [gəzaʔ riʔisu]$_1$ siʔiltat
         that-fs girl   **N**$_P$=Keffy-ms **N**$_K$=that-fp of   self-3ms   picture-p
         hib-a-**tən**
         give=PRF-S3ms-**O3fp**
         Intended: "*The girl gave the pictures of himself$_1$ to Keffy$_1$."

If, on the other hand, object marking cross-references the Goal, the NP+NP frame from (29) above will be the underlying argument structure and the Goal should now be able to bind the Theme. Therefore, no violation of Condition A is predicted if the Theme is a reflexive anaphor that takes the Goal as its antecedent. The example in (38) below forms a minimal pair with (37) with the only difference being that the object marker now cross-references the Goal. As can be seen below, this construction is grammatical.

(38) ʔita gʷal **n**=kefi₁ **n**=ətən naj [gəzaʔ riʔɨsu]₁ sɨʔɨltat
     that-fs girl **N**$_K$=Keffy-ms **N**$_K$=that-fp of self-3ms picture-p
     hib-a-**to**
     give=PRF-S3ms-**O3ms**
     "The girl gave Keffy₁ the pictures of himself₁."

These asymmetric binding facts, which are a function of the object marking pattern, suggest that Tigrinya does in fact employ two different argument structures. Furthermore, it suggests that the hierarchical relationship between the Goal and Theme differs in each argument structure.

3.4 Interim Summary

To summarize the results of this section briefly, the asymmetries above and their correlation with the observed object marking pattern support the following conclusions. The asymmetry diagnosed with Condition A effects (section 3.3) supports the claim that the observed object marking pattern betrays different underlying argument structures for the Goal and Theme arguments of ditransitive verbs. The CAUSE-HAVE Interpretation data (section 3.2) shows that Tigrinya employs two semantically distinct ditransitive frames. The restrictions on the specificity of the Goal and object marking (section 3.1) shows that these frames are hidden by a surface ambiguity between the differential object marker and a prepositional form of the prefixal *N*-marker.

This section, then, has identified some symptoms in Tigrinya of a system that employs (at least) two ditransitive frames. Furthermore, we have found that it is possible to predict the underlying structure based on the observed object marking pattern. These conclusions, in conjunction with the analysis for the object marking pattern in section 2.2, support the larger proposal of this paper. Tigrinya employs two unique ditransitive frames in which the status of the Goal varies between a direct and indirect argument.

4   Accounting for the Word Order Facts

We turn now to a potential and reasonable objection to the analysis that has presented which could be made based on the observed word order facts. In the ditransitive structures of interest, the order

of the Goal and Theme vary based on whether or not the Theme is *N*-marked. When only the Goal is *N*-marked, the canonical word order has the Goal preceding the Theme as shown in (39). When both the Goal and Theme are *N*-marked as in (40), the canonical word order has the Theme before the Goal. In each case, the preferred order is independent of the object marking pattern.
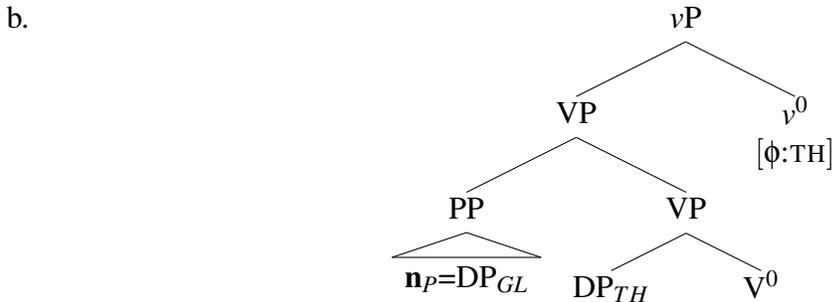
(39) ʔɨta gʷal **n**=əti wədi dəbdabe hib-a-(**to**)
   that-fs girl-s **N**=that-ms boy-s letter give=GER-S3fs-(**O3ms**)
   "The girl gave the boy a letter."   (Goal < Theme)

(40) ʔɨta gʷal **n**=that-fs dəbdabe **n**=ʔɨti wədi hib-a-**to/ta**
   that-fs girl **N**=that-fs letter **N**=that-ms boy give=GER-S3fs-**O3ms/O3fs**
   "The girl gave the boy the letter."   (Theme < Goal)

If it is in fact the case that the object marker cross-references the highest direct argument, one might expect that the argument that is cross-referenced by the object marker would linear precedes the other. This is exactly what one observes in the Tigré data presented by Jake (1980), but, as just noted, this expectation is not borne out of the Tigrinya data.

 I will demonstrate here that this is not a substantive threat to the proposed analysis. The facts are related to the observation in section 1.2 that *N*-marked direct arguments are interpreted as [+specific] and, in the standard case, undergo a local raising operation. I will follow the basic insight of Diesing (1992), who claims that DPs interpreted as [+specific] must evacuate the VP proper in order to escape existential closure of the verb's event argument. For ease of exposition, we will simply assume that this raising operation involves adjunction to the *v*P-layer as in (41).[12]

---

[12]This movement appears to be A-movement as opposed to $\overline{\text{A}}$-movement or perhaps a mix of the two (Thráinsson 2001). First, the unexpected Goal-Theme ordering from the Condition A data in (38) is strongly preferred. The expected Theme-Goal ordering (e.g., (40)) is possible in the example below, but reportedly only with prosodic breaks around the Theme and with a "focus" interpretation on it.

(1) ʔɨta gʷal **n**=ətən naj [gəzaʔ riʔisu]₁ siʔiltat **nɨ**=kefi₁ *e* hib-a-**to**
   that-fs girl **N$_K$**=that-fp of self-3ms picture-p **N$_K$**=Keffy *e* give=PRF-S3ms-**O3ms**
   "The girl gave Keffy₁ the pictures of himself₁." (Theme < Goal DISPREFERRED TO (38))

This preference is expected if the standard Theme-Goal order involves A-movement, which typically resists reconstruction for binding purposes. Second, the Theme-Goal ordering is acceptable and preferred when a quantificational Theme precedes a Goal with a bound pronominal. Again, this is expected if the displacement is A-movement, which typically does not induce weak cross-over violations.

(2) ʔɨta gʷal [**n**=ħadəħadə kəlbi]₁ **n**=bəʕal₁ manʔu *e* hib-a-**to**
   that-fs girl **N**=each-ms dog **N**=own-ms owner=POSS-3ms *e* give=PRF-S3fs-**O3ms**
   Intended "*The girl gave its₁ owner [each dog]₁."

23

(41) a. ʔɨti   səbʔaj [**n**=əta   dəbdabe]₁ sənuj e_1 tsɨħif-u-**wa**
        that-ms man   **N**$_K$=that-fs letter   Monday e write=GER-S3ms-**O3fs**
        "The man wrote the letter on Monday."

  b.

```
                        vP
                  ┌──────┴──────┐
          n_K=DP_TH             vP
                          ┌──────┴──────┐
                        Adv             vP
                                  ┌──────┴──────┐
                                 VP            v⁰
                              ┌───┴───┐      [φ:TH]
                           D̶P̶_TH     V⁰
```

Given this, the word order facts in (39) and (40) receive a fairly straightforward explanation. We can begin with the word order in the NP+PP frame. When only the Goal is N_P-marked (42a), the PP Goal will simply be linearized before the in-situ Theme. This is illustrated by the structure in (42b), which should be familiar from above.

(42) a. ʔɨta   gʷal **n**=əti   wədi dəbdabe hib-a
        that-fs girl-s **N**$_P$=that-ms boy-s letter   give=GER-S3fs
        "The girl gave a letter to the boy."

  b.

```
                              vP
                        ┌──────┴──────┐
                       VP            v⁰
                  ┌─────┴─────┐     [φ:TH]
                 PP           VP
              ┌───┴───┐    ┌───┴───┐
          n_P=DP_GL   DP_TH       V⁰
```

In the case that the the Goal is N_P-marked and the Theme is N_K-marked (43a), the Theme has necessarily moved out of the VP for specificity reasons to the edge of the *v*P as illustrated in (43b). This will have the Theme linearly preceding the Goal.

_____

(43) a. ʔɨti gʷal [**n**=əta dəbdabe]₁ **n**=əti wədi e_1 hib-a-**ta**
that-fs girl N_K=that-fs letter N_P=that-ms boy e give=GER-S3fs-**O3fs**
"The girl gave the boy the letter."

b.
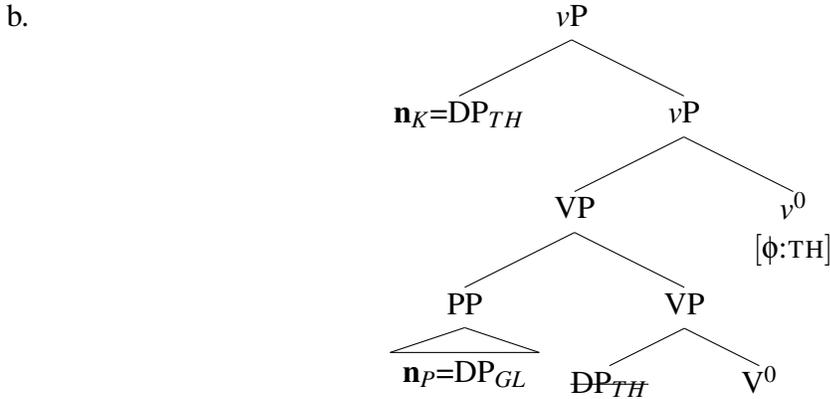
Turning next to the NP+NP frame, when only the Goal is N_K-marked as in (44a), the Goal necessarily moves (potentially string-vacuously) to the edge of the vP (44b). In the same way as we saw with the PP+NP frame, the $[-\text{specific}]$ Theme will remain in-situ. Thus, the Goal precedes the Theme.

(44) a. ʔɨta gʷal [**n**=əti wədi]₁ e_1 dəbdabe hib-a-**to**
that-fs girl N_K=that-ms boy e letter give=GER-S3fs-**O3ms**
"The girl gave the boy a letter."

b.
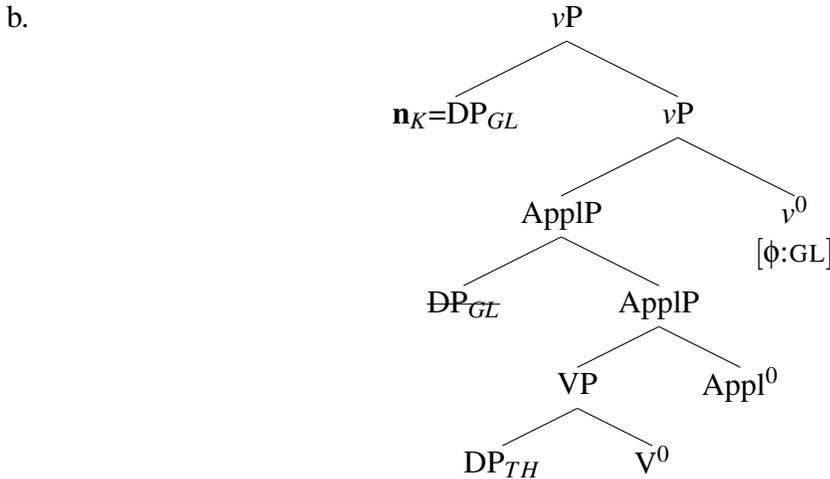
When both the Goal and Theme are N_K-marked (45a), it will be necessary for both arguments to move to the edge of vP for specificity reasons. To accommodate this fact, I will assume that Tigrinya, like Icelandic according Richards (1997) and Rezac (2001), allows multiple specifier constructions. However, given that this multiple object shift operation reverses the underlying

order of the Goal and the Theme, it must be the case that, in Tigrinya, there is a constraint against

tucking-in. As the structure in (45b) illustrates, the Goal will be cross-referenced by the object

marker seeing as it is higher than the Theme in their in-situ position. Then, the Goal moves to the

edge of the *v*P followed by the Theme, which lands above the Goal. The structure will ultimately

be linearized with the Theme preceding the Goal.

(45) a. ʔɨti   gʷal [**n**=əta   dəbdabe]$_2$ [**n**=əti   wədi]$_1$ e_1 e_2
          that-fs girl   **N**$_K$=that-fs letter   **N**$_K$=that-ms boy   *e* *e*
          hib-a-**to**
          give=GER-S3fs-**O3ms**
          "The girl gave the letter to the boy."

   b.
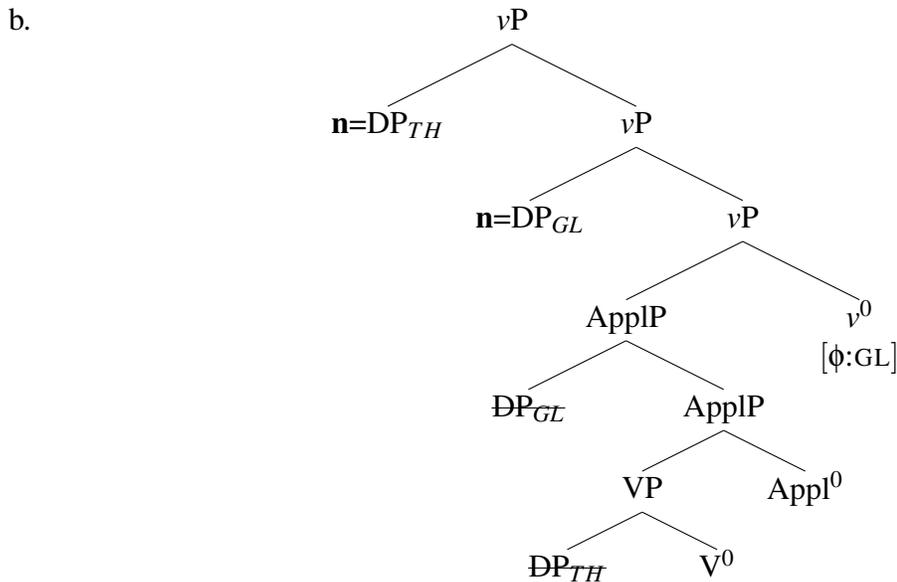
We have seen, then, that the account for the object marking facts above and the postulation of

multiple ditransitive frames are compatible with some potentially problematic word order issues. I

have argued here that the application or non-application of an independent operation of object shift

will regularly order the Theme and Goal similarly in both constructions. Thus, these word order

facts are not puzzling, they simply contribute, along with the homophony between the differential

object marker and preposition *n−*, to a surface ambiguity that obscures the underlying argument

structure alternations.

5 Conclusion

The primary purpose of this paper has been to account for the apparent optionality of object marking in Tigrinya ditransitive constructions. It was suggested that Tigrinya employs two separate ditransitive frames that are masked by a surface ambiguity of the *N*-marker. The analysis rested on the claim that the Goal in a ditransitive structure could be either a direct or indirect argument. When the Goal is a direct argument it is probed by v^0 and triggers object marking. However, when the Goal is an indirect argument it inside of a PP that is opaque for an Agree relationship with v^0. This results in a situation where the presence or absence of object marking and which argument it cross-references corresponds directly to either the NP+NP frame or the PP+NP frame. This analysis preserved the otherwise obligatory nature of object marking in Tigrinya observed with transitive verbs.

In addition to accounting for the data in (1)–(4), this analysis correctly predicted that the observed object marking pattern corresponds to interpretive and binding asymmetries. This further supports the idea that Tigrinya employs two ditransitive argument structures. The discussion of the specificity of the Goal provided evidence for the claim that the *N*-marker is ambiguous between a differential object marker and what has been called a preposition. Tigrinya appears also to have a CAUSE-HAVE interpretation available for its NP+NP frame that has also been observed in English, Japanese, and many other languages. Finally, it was also shown that the presence or absence of Condition A effects between the Goal and the Theme was a function of the object marking pattern. Together, these facts support the hypothesis that there are two different argument structures, but they suggest further that each employs unique syntactic mechanisms, have differing semantics, and do not preserve the relationship between the internal arguments.

These results are interesting for a number of reasons. First, the idea that the objects in Tigrinya ditransitive structures are symmetrical does not appear to have been challenged in the previous literature. The asymmetries discussed in section 3 are novel observations for the language Tigrinya. Additionally, the conclusions reached here for Tigrinya and in Miyagawa and Tsujioka (2004) for Japanese mutually support each other. There is a class of strongly head final languages which

employ multiple and distinct ditransitive frames that are masked by surface ambiguities.

This in turn means that Tigrinya and Japanese also contribute to a typological picture of symmetrical and asymmetrical object languages. The object marking pattern in ditransitives initially suggested that Tigrinya is a symmetrical object language. If having two distinct ditransitive frames can create this effect, then the same could be true a priori for at least any given symmetrical object language in which the arguments do not simultaneously display primary object properties. Thus, it might be the case that there are two classes of symmetrical object languages. The first would be the class of true symmetrical object languages that employ only an NP+NP frame in which both arguments show properties of primary objects. The second class, of which Tigrinya is a member, is a false symmetrical object language with two ditransitive frames in each of which only a single argument displays primary object properties and this system is obscured by a surface ambiguity.

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